

AMENDMENTS TO THE CLAIMS

This following listing of claims will replace all prior versions, and listings, of claims in the application:

1-29. (Canceled)

30. (Amended) A device for measuring fluids in a body, comprising:

an inlet portion for receiving dialysis fluid;

a supply tube coupled to the inlet portion for conducting the dialysis fluid through a skin surface and subcutaneously, wherein the supply tube includes a porous membrane through which constituents of fluids in the body are picked up by the dialysis fluid flowing through the supply tube;

a discharge tube subcutaneously coupled to the supply tube for conducting the dialysis fluid containing constituents from the fluids of the body out through the skin surface, wherein the discharge tube is positioned substantially perpendicular to the skin surface and includes a porous membrane through which the constituents of fluids in the body are picked up by the dialysis fluid flowing through the discharge tube;

a supporting plate positioned substantially parallel to the skin surface and having a lower surface positioned against the skin surface and an upper surface facing away from the skin surface, wherein the supply tube and the discharge tube flow through the support plate in a direction substantially perpendicular to the skin surface;

an outlet portion positioned on the upper surface of the supporting plate and coupled to the discharge tube at a joint portion positioned on the upper surface of the supporting plate, wherein the dialysis fluid containing constituents flows from the discharge tube to the outlet portion through the joint portion;

a valve positioned in the discharge tube adjacent to the joint portion for preventing a reverse flow of the dialysis fluid into the discharge tube; and

a sensor for measuring attributes of fluids in the body, wherein the sensor is positioned in the joint portion between the discharge tube and the outlet portion

a structure having an inlet portion, an access portion, and an outlet portion, the access portion being implantable in the body when the device measures the fluids in the body

~~and being in fluid communication between the inlet portion and the outlet portion, wherein the access portion has a fluid channel in which a dialysis fluid flows from the inlet portion to the outlet portion whereby constituents of the fluids in the body are picked up by the dialysis fluid flowing through the access portion; and~~

~~a sensor being arranged in the fluid channel in vicinity of the outlet portion, the sensor being disposed outside of the body when the access portion is implanted in the body to measure the fluids in the body.~~

31. (Previously Presented) The device of claim 30, wherein the sensor is arranged such that the sensor is removable.

32-37 (Canceled)

38. (New) A device for measuring fluids in a body, comprising:

an inlet portion for receiving dialysis fluid;

a supply tube coupled to the inlet portion for conducting the dialysis fluid through a skin surface and subcutaneously, wherein the supply tube includes a porous membrane through which constituents of fluids in the body are picked up by the dialysis fluid flowing through the supply tube;

a discharge tube subcutaneously coupled to the supply tube for conducting the dialysis fluid containing constituents from the fluids of the body out through the skin surface, wherein the discharge tube is positioned substantially perpendicular to the skin surface and includes a porous membrane through which the constituents of fluids in the body are picked up by the dialysis fluid flowing through the discharge tube;

a supporting plate positioned substantially parallel to the skin surface and having a lower surface positioned against the skin surface and an upper surface facing away from the skin surface, wherein the supply tube and the discharge tube flow through the support plate in a direction substantially perpendicular to the skin surface;

an outlet portion positioned on the upper surface of the supporting plate and coupled to the discharge tube at a joint portion positioned on the upper surface of the supporting plate,

wherein the dialysis fluid containing constituents flows from the discharge tube to the outlet portion through the joint portion;

a valve positioned in the discharge tube adjacent to the joint portion for preventing a reverse flow of the dialysis fluid into the discharge tube; and

a sensor for measuring attributes of fluids in the body, wherein the sensor is positioned in the joint portion between the discharge tube and the outlet portion.